## Lycopodiella inundata L.

bog clubmoss Lycopodiaceae (Club moss family)

Status: State Sensitive

Rank: G5S2

General Description: Adapted from Hitchcock et al. (1969) and Hickman (1993): Lycopodiella inundata is a perennial plant that grows low to the ground and is creeping to vine-like. It has both fertile stems (bearing spores) and sterile stems (bearing only leaves). The sterile stem is branched in one horizontal plane, creeps on the ground, and is 2 to 10 in. (5-25 cm) long by  $\frac{1}{4}$  to  $\frac{1}{2}$  in. (0.5-1 cm) wide, including the leaves. The many sterile leaves are small and somewhat scale-like to needle-like. They are one veined, spirally or alternately arranged, mostly entire, and are 1/8 to ½ in. (3-8 mm) long and less than 1/16 in. (1 mm) wide. There are generally 1 to 2 fertile stems that are erect and unbranched, and are 1 2/3 to 3½ in. (4-9 cm) long, including the cone like structure at the tip of the stalk that contains the spores, and about ¼ in. (3-4 mm) wide, including the leaves. The cone is 2/3 to 1¼ in. (1.5-3 cm) long and ¼ to ½ in. (8-10 mm) wide. The numerous sporophylls (leaves on the fertile stem) are crowded and expanded at the base, but otherwise resemble the vegetative leaves, and have long, slender, green loosely ascending tips.

**Identification Tips:** *Lycopodiella inundata* used to be in the genus *Lycopodium* and is the only species of *Lycopodiella* in Washington. Within Washington it closely resembles species in the genus *Lycopodium*, but can be recognized by its fertile stems, which are unbranched and produce 1 cone, whereas the fertile stem of *Lycopodium* is branched and has many cones.

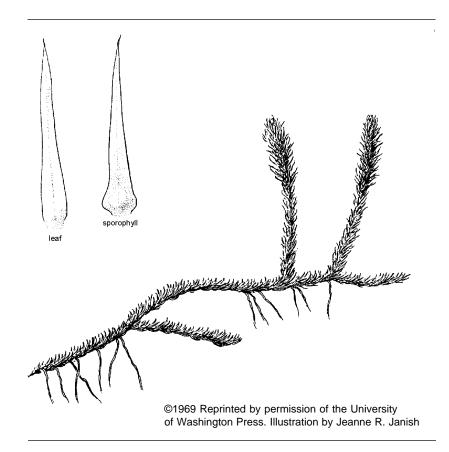
**Phenology:** This species is recognizable throughout the year.

**Range:** This species is interruptedly circumboreal. In North America it is known from Newfoundland south to Georgia. In Washington it has been reported in Clallam, Whatcom, Pacific, Skamania, Kitsap, King, Pierce, and Thurston counties.

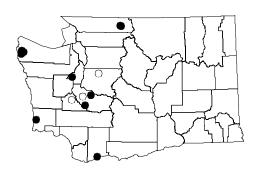
**Habitat:** This species has been found in Washington from 9 to 80 feet (2.74-24 m), however, it may be found in higher elevations. Associated species include tall sedge (*Carex opnupta*), oceanspray (*Holodiscus discolor*), devil's club (*Oplopanax horridum*), cattail (*Typha* sp.), and narrow leaved burr-weed (*Sparganium emersum*).

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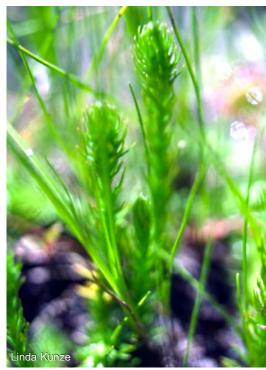
Known distribution of Lycopodiella inundata in Washington



- Current (1980+)
- O Historic (older than 1980)

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2005 Produced as part of a cooperative project between the Washington Department of Natural Resources, Washington Natural Heritage Program and the U.S.D.I. Bureau of Land Management. Persons needing this information in an alternative format, call (360) 902-1600 or TTY (360) 902-1125.

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**Ecology:** *Lycopodiella inundata* is found within sphagnum bogs, wet, sandy places, wetlands adjunct to lakes, and swampy ground.

**State Status Comments:** In Washington it is only known from less than 15 occurrences. This, plus its association with bogs and wetlands, contributes to its sensitive status.

**Inventory Needs:** Additional inventory within bogs and wetlands is needed in Washington.

Threats and Management Concerns: Hydrologic changes, degradation and destruction of habitat, invasive species such as reed canary grass, and recreation may all affect the rare and fragile habitats of this plant.

#### References:

Hickman, J.C. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley. 1400 pp.

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1969. Vascular Plants of the Pacific Northwest\_Part 1: Vascular Cryptogams, Gymnosperms, and Monocotyledons. University of Washington Press, Seattle, WA. 914 pp.

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